

REMARKS

The Pending Claims

Claims 1-98 are currently pending. The pending claims are directed to chemical-mechanical polishing compositions and methods of polishing a substrate using the same. Reconsideration of the pending claims is respectfully requested.

Discussion of the Claim Amendments

Claims 1 and 21 have been amended to recite that the chemical-mechanical polishing composition further comprises a corrosion inhibitor. Claims 9 and 30 have been amended to recite that the corrosion inhibitor is selected from a specified group. Claims 43 and 64 have been amended to recite that the chemical-mechanical polishing compositions used in the method of polishing a substrate further comprises a corrosion inhibitor. Claims 52 and 74 have been amended to recite that the corrosion inhibitor is selected from a specified group. Support for these amendments can be found in the instant specification, e.g., at page 7, paragraph [0024].

New claims 87-91 have been added to recite further embodiments of the method recited in original claim 43. New claim 87 essentially is original claim 44 written into independent form. Insofar as the Office Action acknowledges that original claim 44 recites subject matter that is patentable over the prior art, new claim 87, and new claims 88-91, which depend from new claim 87, must also be patentable over the prior art. New claims 92-98 have been added to recite further embodiments of the method recited in original claim 64. New claim 92 essentially is original claim 65 written into independent form. Since the Office Action acknowledges that original claim 65 recites subject matter that is patentable over the prior art, new claim 92, and new claims 93-98, which depend from new claim 92, must also be patentable over the prior art.

No new matter has been added by way of these amendments.

Summary of the Office Action

The Office Action rejects claims 1-6, 11, 14-18, 21-27, 32-40, 43, 54-61, 64, and 76-84 under 35 U.S.C. § 103(a) as allegedly unpatentable over Japanese Patent Publication No. 11-080707 (Suzumura et al.) (hereinafter "the Suzumura '707 publication"). The Office Action also rejects claims 1-8, 11-29, 32-43, 54-64, and 76-86 under 35 U.S.C. § 103(a) as allegedly unpatentable over Japanese Patent Publication No. 11-080708 (Suzumura et al.) (hereinafter "the Suzumura '708 publication"). The Office Action acknowledges that claims 9, 10, 30, 31, 44-53, and 65-75 recite subject matter that is allowable over the prior art, but objects to the claims insofar as they depend from one or more rejected base claims.

Discussion of the Obviousness Rejection

The Office Action rejects claims 1-8, 11-29, 32-43, 54-64, and 76-86 as allegedly unpatentable over the Suzumura '707 publication or the Suzumura '708 publication. Applicants respectfully traverse the rejections.

Neither the Suzumura '707 publication nor the Suzumura '708 publication discloses or suggests the specific combination of components recited in the pending claims, namely, (1) fumed silica particles, (2) an alkaline earth metal selected from the group consisting of calcium, barium, and strontium, (3) a corrosion inhibitor, and (4) water, as recited in the pending claims. The Suzumura '707 publication is generally directed to a polishing composition comprising (1) a polishing material, (2) 0.001-0.15 mol/L of at least one cation selected from the group consisting of ammonium ions, alkali metallic ions, and alkaline earth metallic ions, (3) at least one of carbonate ions, hydrogencarbonate ions, or carbonic acid, and (4) water. The Suzumura '708 publication is similarly directed to a polishing composition comprising (1) a polishing material, (2) 0.001-0.15 mol/L of at least one cation selected from the group consisting of ammonium ions, alkali metallic ions, and alkaline earth metallic ions, (3) at least one anion selected from the group consisting of nitrate, nitrite, chloride, perchlorate, chlorate, chlorite, hypochlorite, borate, perborate, sulfate, sulfite, persulfate, phosphate, phosphite, hypophosphite, silicate, organic acid radicals and ions of the hydroacids thereof, and (4) water. The Suzumura publications further provide that the polishing material can be silicon dioxide, aluminum oxide, cerium oxide, titanium oxide, silicon nitride, zirconium dioxide, or manganese dioxide.

Neither of the Suzumura publications discloses or suggests the use of a corrosion inhibitor, as required by the pending claims. As the Office Action acknowledges, original claims 9, 30, 52, and 74, which recite a polishing composition comprising a corrosion inhibitor selected from the group consisting of 1,2,3-triazole, 1,2,4-triazole, benzotriazole, benzimidazole, benzothiazole, and mixtures thereof, or a method of using such a polishing composition, would be allowable if rewritten in independent form including all of the limitations of the base claim and any independent claim. Original claims 1, 21, 43, and 64 have been amended to recite a polishing composition comprising a corrosion inhibitor or a method of using such a polishing composition. Original claims 9, 30, 52, and 74 have been amended to recite that the corrosion inhibitor is selected from the above-mentioned Markush group. Accordingly, the Section 103(a) rejection should be withdrawn.

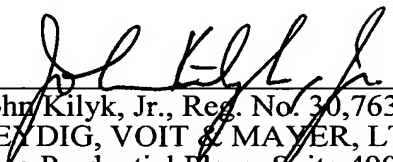
Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the

In re Appln. of Schroeder et al.
Application No. 10/660,379

Examiner, a telephone conference would expedite the prosecution of the subject application,
the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



John Kilyk, Jr., Reg. No. 30,763
LENDIG, VOIT & MAYER, LTD.
Two Prudential Plaza, Suite 4900
180 North Stetson Avenue
Chicago, Illinois 60601-6780
(312) 616-5600 (telephone)
(312) 616-5700 (facsimile)

Date: March 23, 2005